

AR-7 SURVIVAL RIFLE



DO EVERYTHING MANUAL

ASSEMBLY

DISASSEMBLY

LUBRICATION

AMMUNITION

MAINTENANCE

STORAGE

TABLE OF CONTENTS

NOMENCLATURE	8
FIELD ASSEMBLY	12
BARREL	16
RECEIVER	17
BOLT	26
BOLT MODIFICATIONS	30
AMMUNITION	31
STORAGE	32

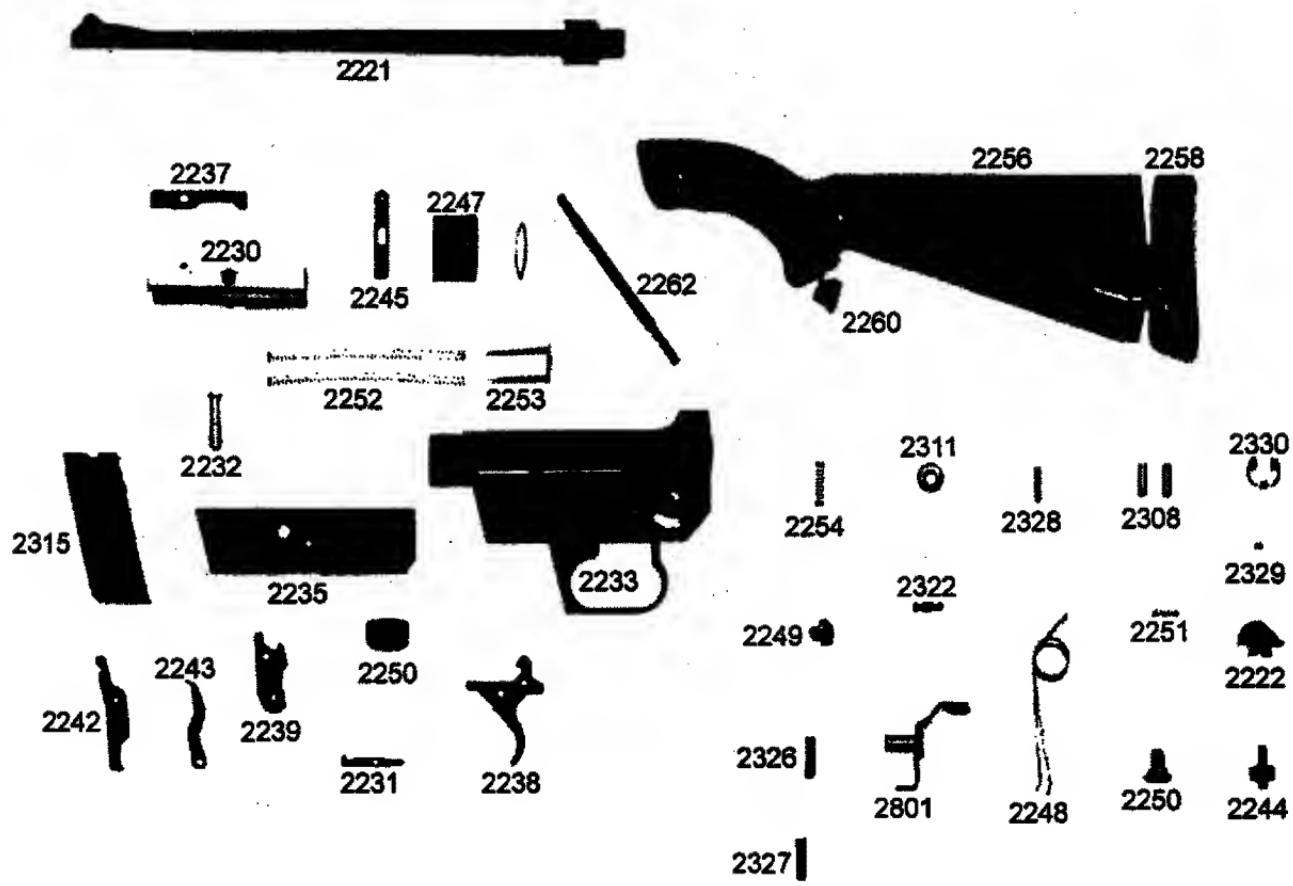
WARNING

We have strived to give you the safest AR-7 Manual possible! Please be advised however, that the entity performing any operations assumes all risk associated, including any legal responsibilities concerning devices or instructions detailed in this manual.

This manual is Presented for Your Enjoyment, Information, Educational, or Investment Purposes Only.

The purchase or ownership of this manual constitutes a release of M&M ENGINEERING's responsibility for injuries, property damage, or legalities incurred. Due to the wide variations in the operations detailed here and the testing procedures used in this manual, it would clearly be impossible to maintain control over any operations detailed, or their use.

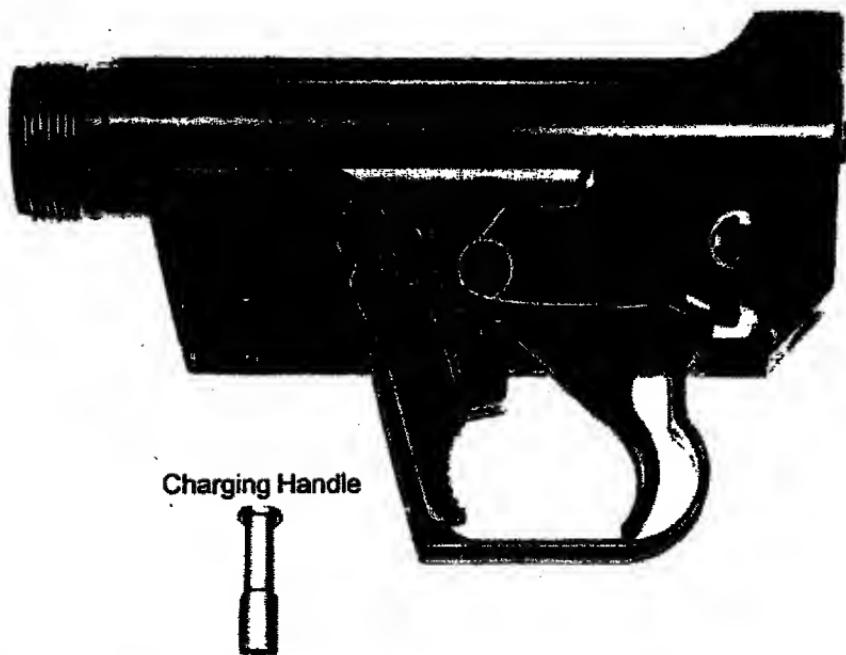
Therefore M&M ENGINEERING nor the AUTHOR cannot and Will not accept any responsibility for any instructions, devices or modifications as detailed in this manual.



NOMENCLATURE

PLEASE USE PART NUMBERS & NAME WHEN ORDERING
REPLACEMENTS

2252	Action Spring
2253	Action Spring Guide
2221	Barrel
2247	Barrel Nut
2230	Bolt
2232	Charging Handle
2243	Ejector
2308	Ejector Pivot Pin
2231	Extractor
2254	Extractor Spring
2326	Extractor Roll Pin
2237	Firing Pin
2327	Firing Pin Roll Pin
2239	Hammer
2248	Hammer and Trigger Spring
2322	Hammer and Trigger Spring Support Pin
2244	Hammer Pivot Pin
2315	Magazine
2251	Magazine Latch Spring
2242	Magazine Latch
2311	Rear Sight Press Nut
2233	Receiver
2235	Receiver Side Plate
2250	Receiver Side Plate Screw
2329	Safety Ball Detent
2330	Safety Snap Ring
2801	Safety Sub-Assembly
2245	Rear Sight
2249	Rear Sight Screw
2222	Front Sight
2256	Stock
2262	Stock Take Down Screw
2260	Stock Take Down Screw Nut
2328	Stock Take Down Screw Nut Roll Pin
2258	Stock Butt-Cap
2238	Trigger
2308	Trigger Pivot Pin



Charging Handle



Bolt Assembly

Spring Guide

Action Springs

Hammer & Trigger
Spring Retaining Pin

Hammer

Trigger
Pivot
Pin



Hammer
Pivot
Pin

Trigger

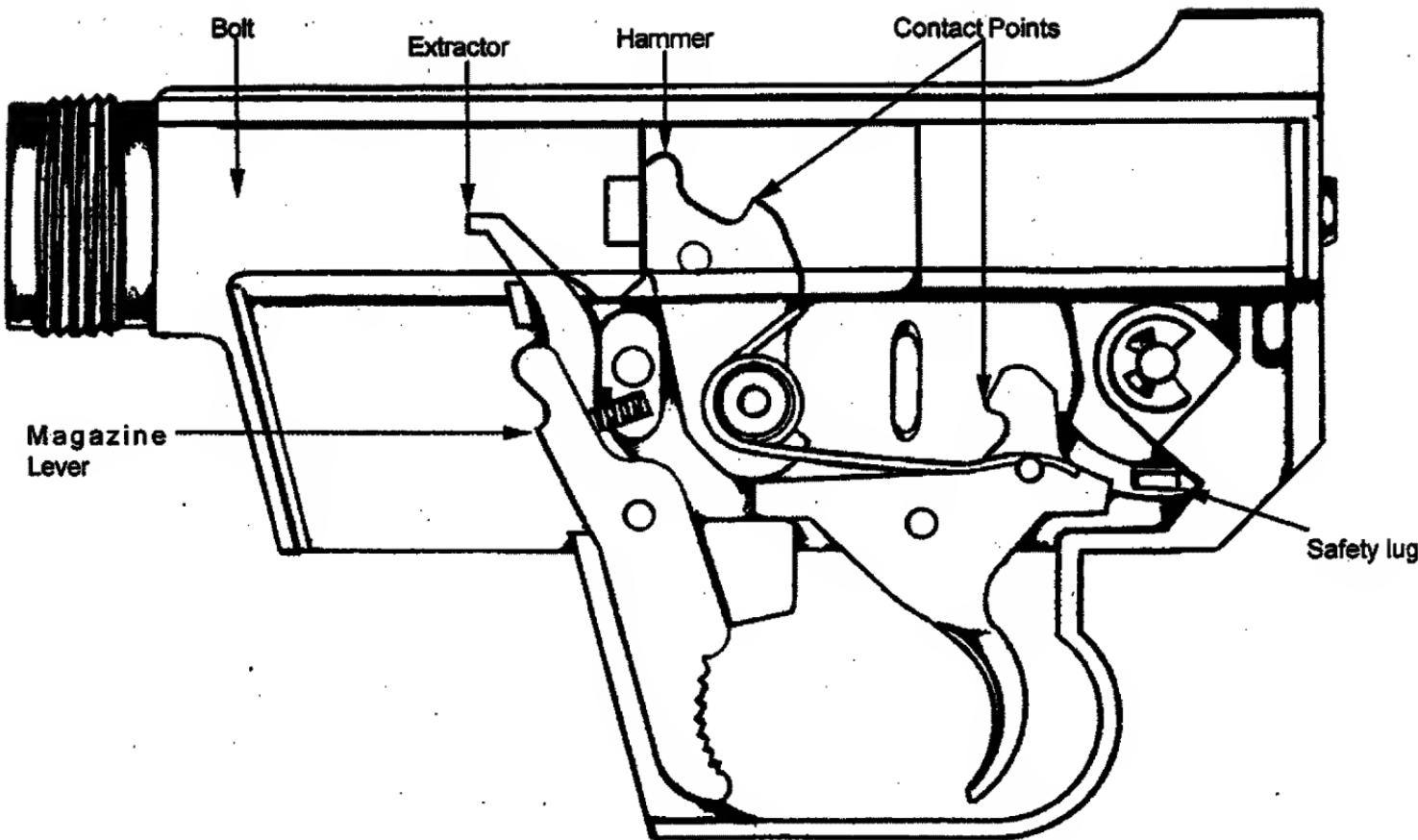


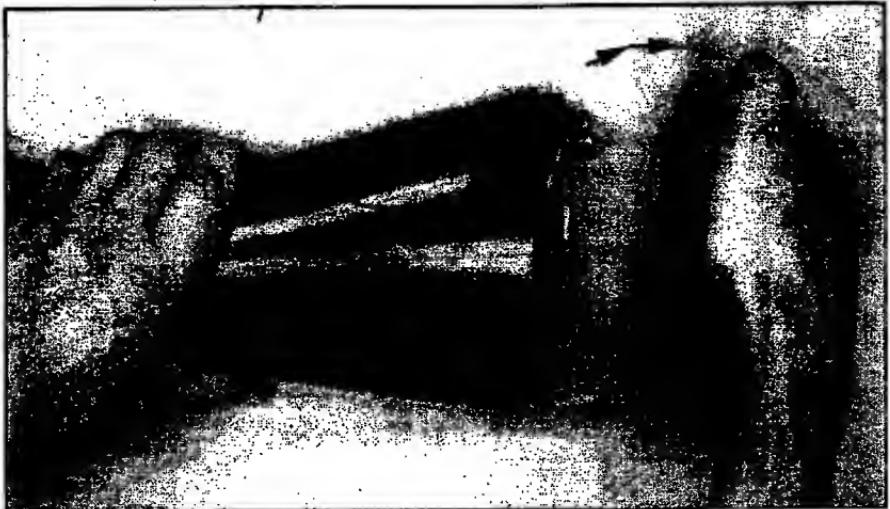
Magazine
Latch
Spring

Ejector
Pivot Pin

Magazine Latch

Hammer & Trigger Spring





With the Stock in your left hand, grasp the butt cap with your thumb on the serrated grip and pull cap from the stock.

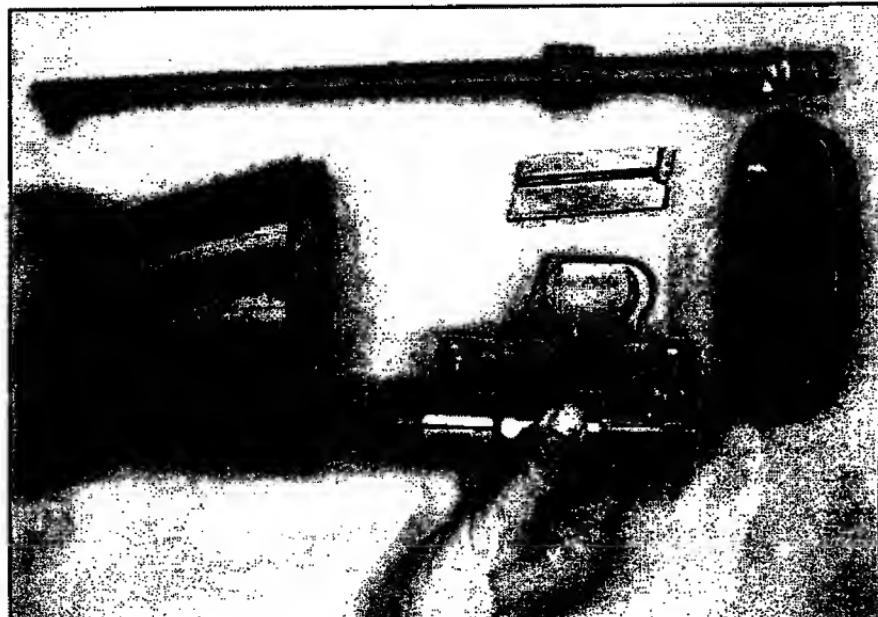
Withdraw the magazine.

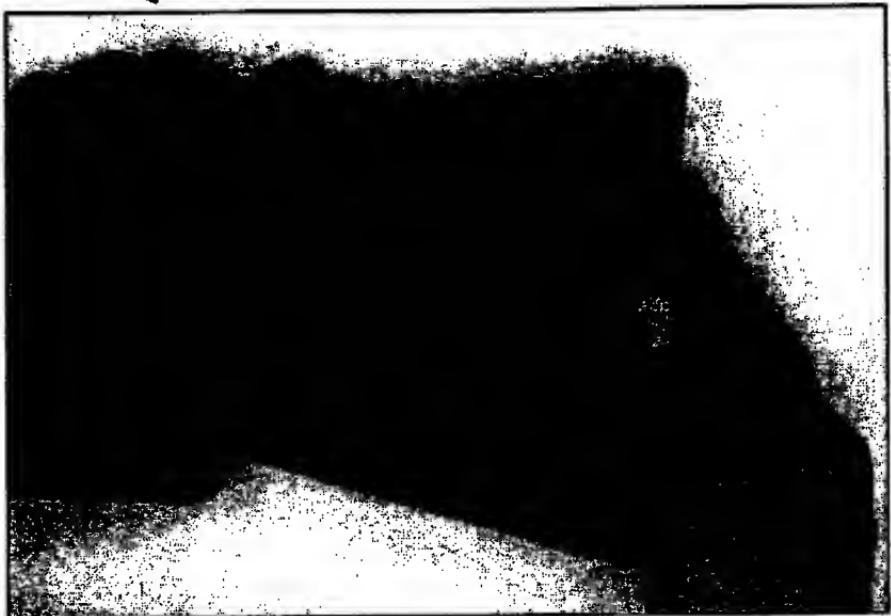




Withdraw the barrel assembly.

Withdraw the receiver assembly.

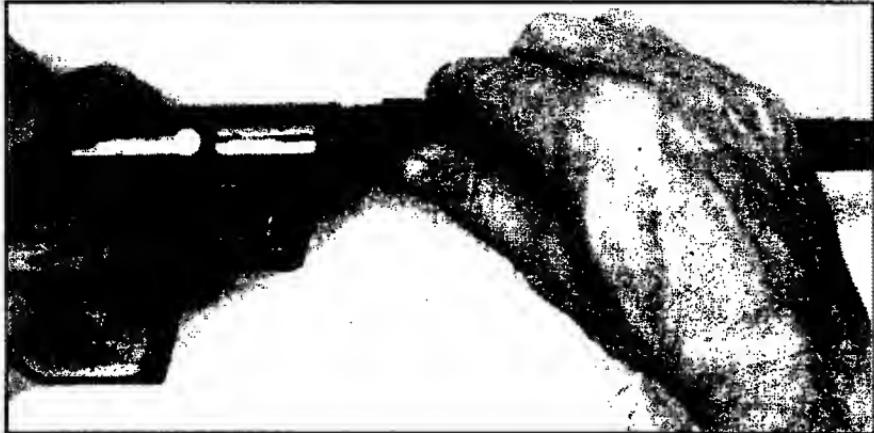




Begin assembly by snapping on butt cap.

Place receiver into position and turn the take down screw clockwise onto butt stock. Periodically check screw for tightness.





Align barrel lug with the cut in the receiver and screw the barrel nut clockwise onto the receiver threads.

Check function of bolt by drawing charging handle all the way and rechecking barrel nut for tightness. Periodically check for tightness of barrel nut.



After market barrel of all kinds are available. But they usually don't fit into the stock, add extra weight, aren't any more accurate and are expensive. But they look "COOL"?

Install the empty magazine and check that the magazine lock holds magazine in receiver. Follow all safety procedures before loading.

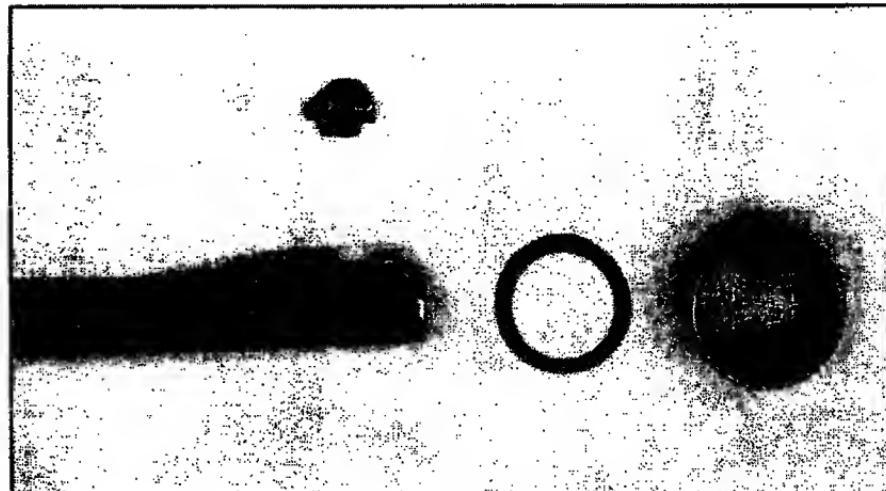


BARREL DISASSEMBLY



To disassemble the barrel. Use a drift punch to push the front sight from right to left, as shown. Instal from left to right

With the front sight removed you can slip the barrel nut off. Remove the barrel nut washer. Clean and inspect for cracks, wear, or damage. Oil lightly and reassemble in reverse.



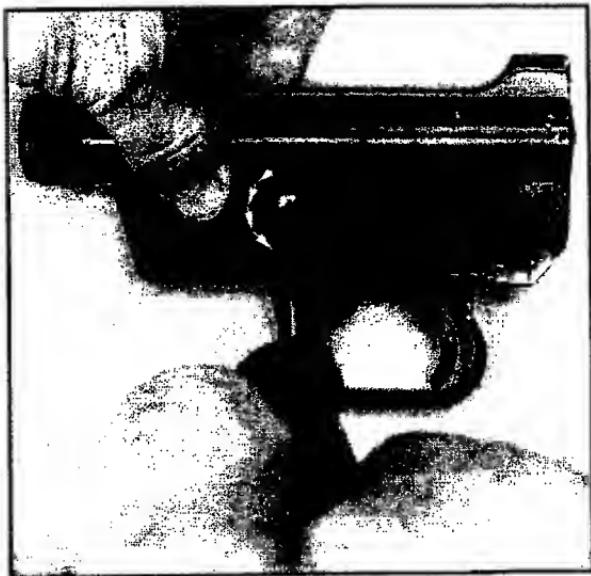
RECEIVER DISASSEMBLY



Begin receiver disassembly by removing the rear sight screw counter clockwise, and remove the rear sight.



Make sure that the rear sight is bowed outward in the center so that the rear sight screw compress the rear sight against the receiver during assembly. Do Not remove rear sight press nut.

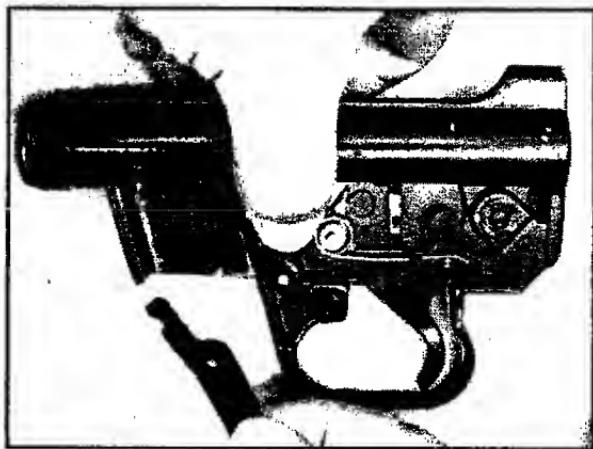
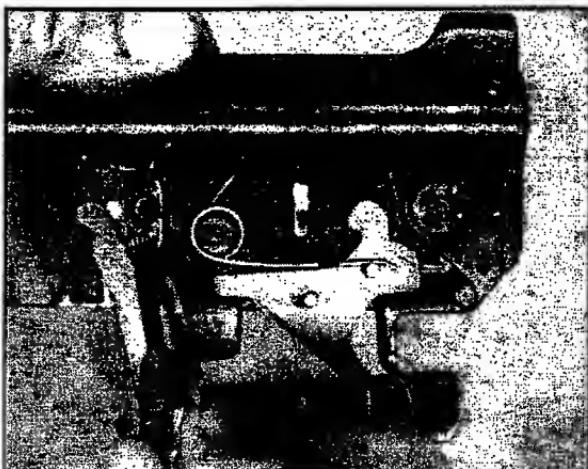


Remove the receiver cover by unscrewing the cover screw counter clockwise.

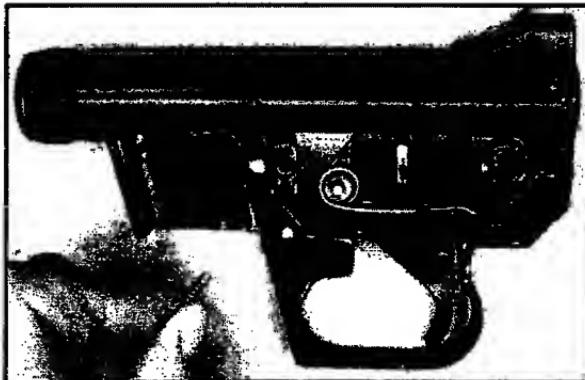
Lift off the receiver cover carefully so as not to dislodge the internal parts.



Examine the magazine lever spring. It will fly out and may become lost if not contained.

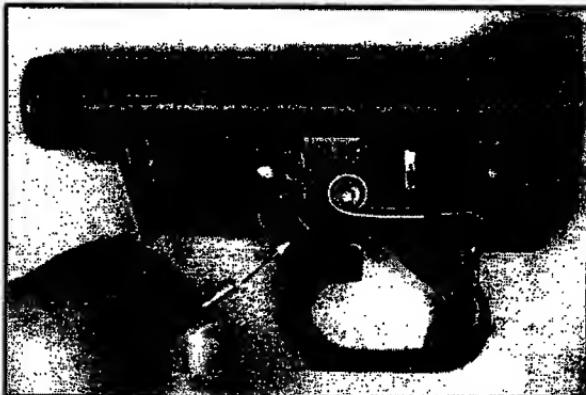


With your thumb over the magazine lever spring, slip the magazine lever from its pin.

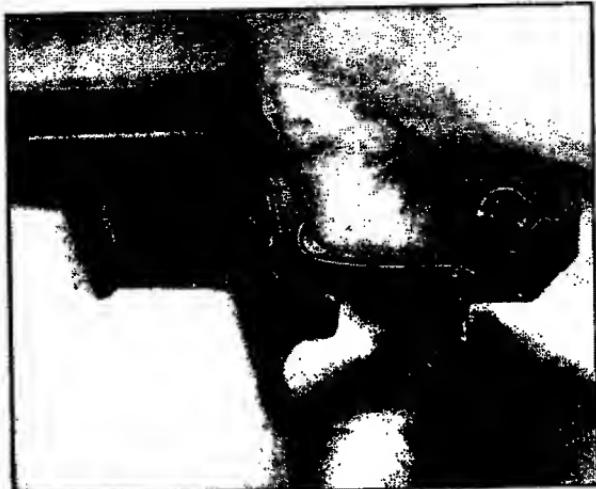


With the pressure removed from the magazine spring by the removal of the magazine lever, the spring is lifted from its cut in the receiver.

Remove the magazine & ejector pin front the receiver. The magazine lever pin is slightly shorter then the trigger pin and are not interchangeable.



Lift the extractor from the receiver. Carefully examine the extractor for cracks or deformation.

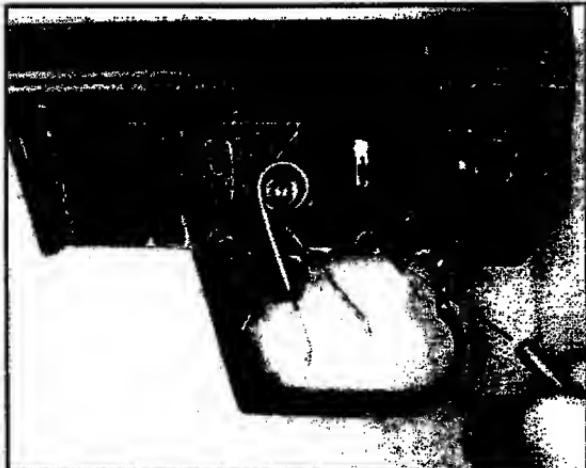


Gripping the rear of the receiver with your left hand as shown, with your thumb on the hammer catch of the trigger and your right thumb on the trigger paw, draw up from the trigger pin, being careful not to loose the hammer & trigger spring support pin.



Remove the hammer & trigger spring support pin front the trigger.

Remove the trigger pin from the receiver. The Magazine lever pin is slightly shorter then the trigger pin and are not interchangeable.

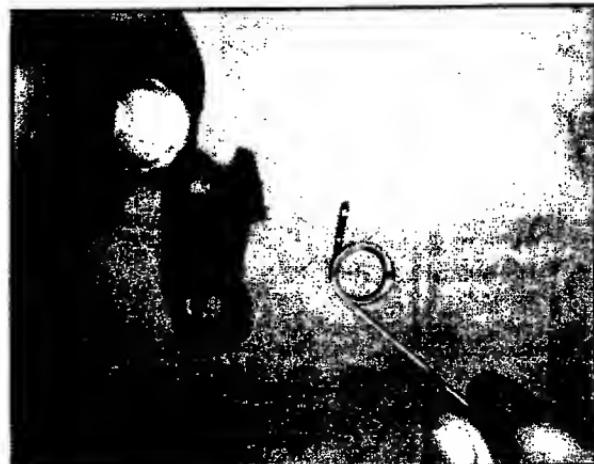


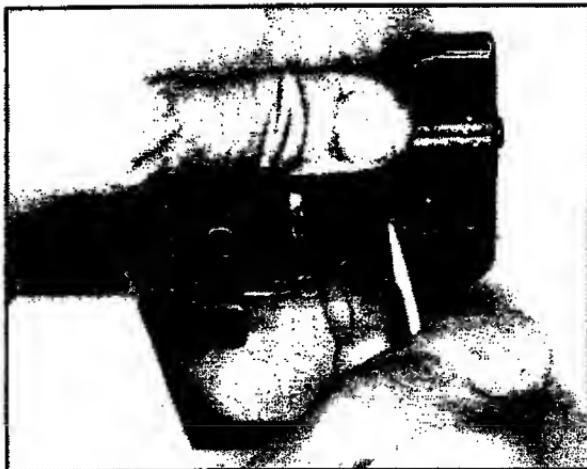
**Lift the hammer with it's
hammer pivot pin,
hammer & trigger
spring from the re-
ceiver.**



**Now lift the hammer
pivot pin from the ham-
mer.**

**And remove the ham-
mer & trigger spring
from the hammer.**



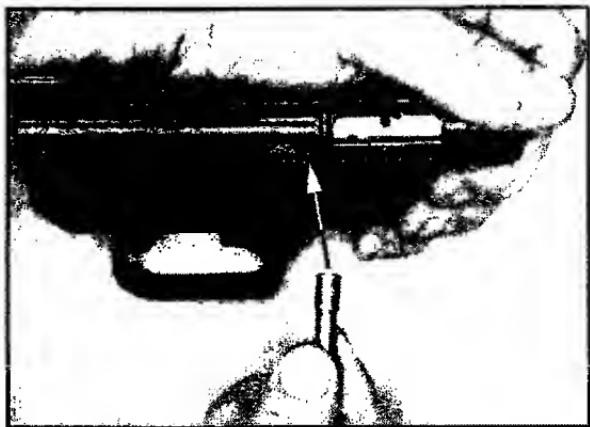


Using a straight bladed screwdriver remove the safety snap ring.



Flip the receiver over on the right side and lift out the safety lever. You should not remove the safety ball detent.

Using your left index finger push the face of the bolt in to align the charging handle with its larger opening in the charging handle slot in the receiver and slide the charging handle out. Release your finger slowly.



ASSEMBLY TIP:

When installing the bolt into the rifle the action spring guide should be placed onto the action springs, and the springs inserted into the bolt. Holding the bolt down with the springs up, slide the receiver over the action spring guide, springs and bolt, making sure they slide straight into the bolt and that the springs don't kink.

Gradually release pressure from the bolt and withdraw from the receiver.





Remove the action springs from the bolt

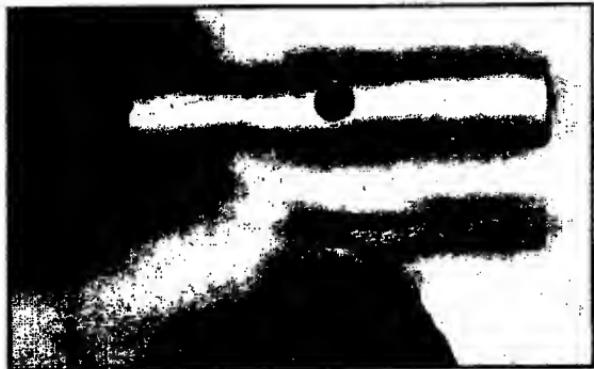
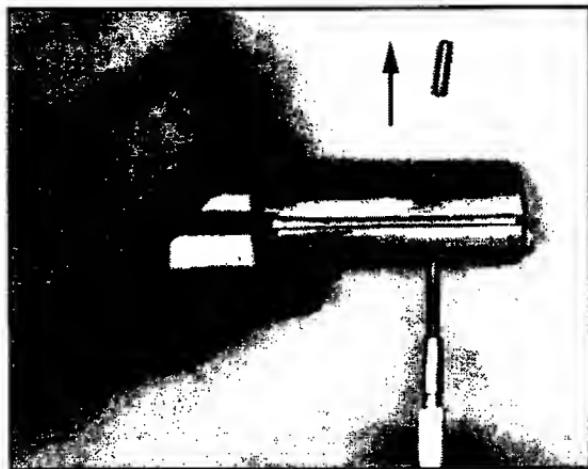
ASSEMBLY TIP:

Lightly lubricate the action spring guide, springs and the bolt to ensure free movement of the bolt during recoil. Do not use too much oil as it will promote sluggish bolt operation. Thoroughly clean the receiver and lightly lubricate all surfaces.

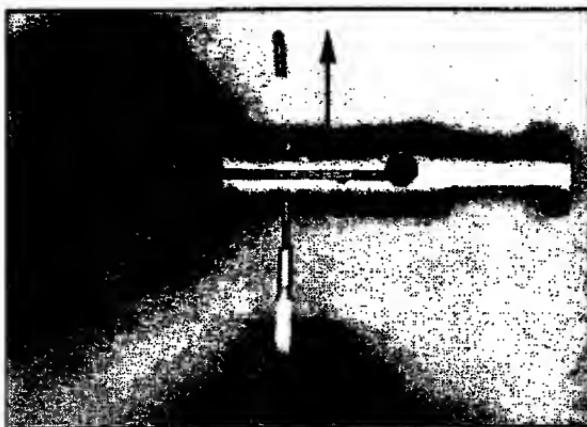
Tip the receiver downward and remove the action spring guide.



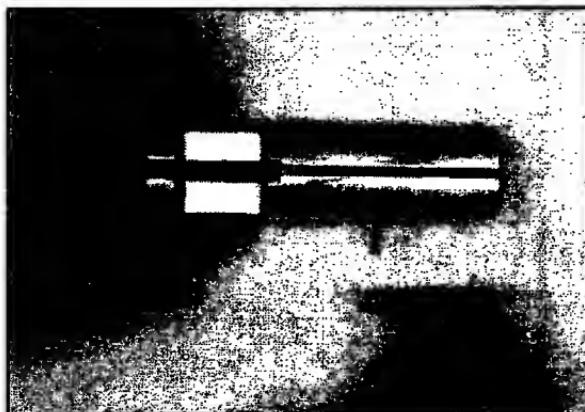
Using a drift, drive out the firing pin roll pin from right to left. Assembly in reverse.



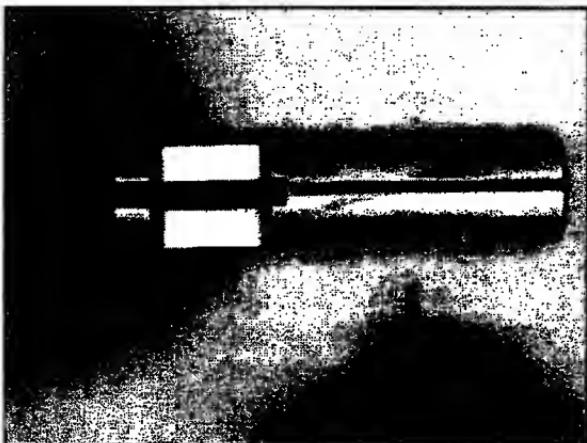
Lift the firing pin from the bolt. During assembly, check for free movement of the firing pin.



Using a drift, drive out the extractor roll pin from the bolt, top to bottom. Assembly in reverse. The firing pin roll pin and the extractor roll pin are interchangeable.

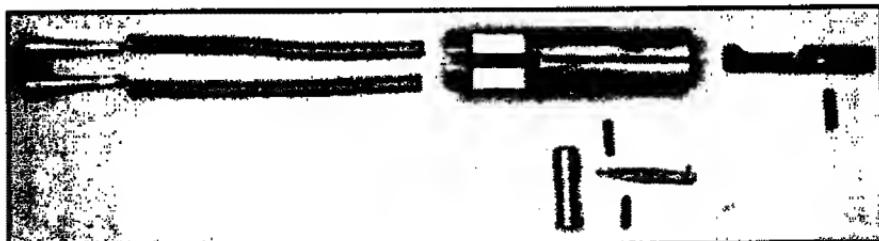


Lift out the extractor from the bolt. Being careful not to loose the extractor spring.



Lift out the extractor spring form the bolt.

The individual parts should be thoroughly cleaned and inspected for wear, cracks, bent or weak springs, loose pins and bent or sticking parts. Reassemble in reverse order. Your bolt will not look exactly like the one pictured here. This bolt has been lightened to shoot subsonic ammunition reliably.



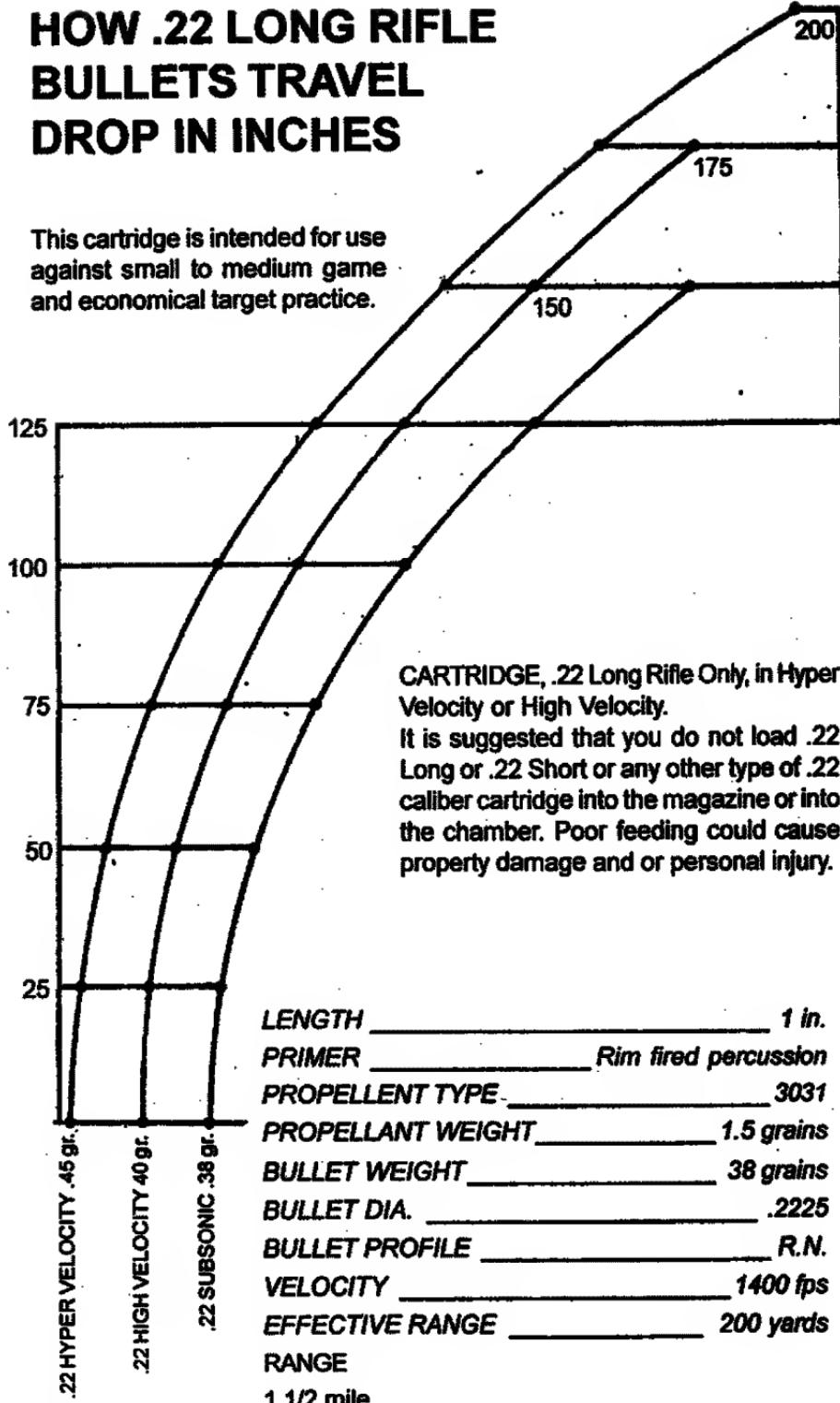
The lower pressures experienced with subsonic ammunition will not produce the energy required to recoil the bolt sufficiently to function the AR-7 semiautomatically. Experience has shown that reducing the recoil spring wire diameter, number of coils or the alloy to allow the lower pressure ammunition to recoil the bolt sufficiently to eject the spent cartridge will not possess the required energy to strip a fresh cartridge from the magazine and fully chamber the cartridge. Therefore, the only alternative available is to reduce the mass weight of the bolt. Experienced machinist can manufacture a new bolt from a Hardenable grade of aluminum. 6061 is the least expense and most versatile aluminum alloy. It has a very high resistance to corrosion and can be machined by all common methods. 5052 is the highest in strength, easily machined and fully heat-tractable. It's fatigue strength/duration is higher then any other aluminum alloy and has exceptionally high resistances to chemically corrosive agents.

The reduction of weight need go no further than removal of mass weight from non-stressed areas of the factory bolt. A bolt weight reduction will reduce the required recoil forces needed to operate semiautomatically. It would be inadvisable to fire standard ammunition with a low weight bolt as detailed here, the recoil forces would drive the bolt against the action spring guide at or beyond it's designed stress limits. Breakage of the firearm, it's parts, personal injury or damage may result.

But the reduction of the sound signature is so dramatically reduced when using subsonic ammunition that it is a "give and take" trade off that shouldn't be over looked. It would be wise to investigate the sound signature produced without bolt modifications by using standard subsonic ammunition before machine work on the bolt begins. The sound reduction using standard subsonic ammunition is, as said before, dramatic. Please check and comply with any and all laws prior to modification of any firearm.

HOW .22 LONG RIFLE BULLETS TRAVEL DROP IN INCHES

This cartridge is intended for use against small to medium game and economical target practice.



Storage

Check function by dry firing without ammunition.

TEST FIRING

With the safety on.

Place 1 cartridges into the magazine, insert the magazine, chamber the cartridge. Aim the firearm in a safe direction, place the safety on fire position and depress the trigger, the cartridge should fire. Repeat as necessary.

IF IN DOUBT

Have the firearm checked by a competent, Federally licensed gunsmith.

Anytime you put away your AR-7 it should cleaned and coated with a thin layer of gun oil. Long term storage (which I will consider over 1 year), should be preserved with a through cleaning followed by a thick coating of 80 weight (+or-) gear oil as used in automobile rear ends and manual transmissions. If underground burial is intended a suitable tube can be manufactured from 6" PVC plumbing pipe with end caps. Or use the military surplus sonar buoy shown below for under ground use, with 4 1/2 gallons of gear oil. Everything will be like new! Put the pistol/rifle, some ammo (SEALED SEPARATELY), clips and fill it up to the top with gear oil. Then use a whole tube of silicon sealer around the screw on cap.



E-Z ORDER FORM

SEND TO:

**M&M ENGINEERING
87 PINE KNOLLS
ARLINGTON, VT.
05250**

SHIP TO:

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PLEASE LEAVE YOUR PHONE NUMBER _____

WE WILL CALL BEFORE SHIPPING IF PROBLEMS ARISE WITH YOUR ORDER.

DO YOU HAVE QUESTIONS? CALL US AT 802 - 375 - 9484

ORDER NUMBER	TITLE	\$5.00 PER
ADD \$5.00 SHIPPING & HANDLING		\$5.00
TOTAL ENCLOSED		

OTHER GREAT ASSEMBLY-DISASSEMBLY MANUALS

1903 SPRINGFIELD	5035
FN 49	5036
AK-47 & MAC 90	5038
SKS (ALL VERSIONS)	5039
30-4-KRAG	5046
FN FAL	5047
MOSIN NAGANT	5048
BRITISH .303	5049
THOMPSON	5050
STEN	5051
H&H G3 .308	5052
AR-15 M-16	5053
TOKAREV	5054
MARLIN LEVER ACTIONS	5055
COBRAY-INGRAM-MAC	5056
MAUSER BOLT ACTIONS (MILITARY VERSIONS)	5057
WINCHESTER LEVER ACTIONS	5058
RUGER .22 MK PISTOLS	5059
GLOCK PISTOLS	5060
BARETTA 92 PISTOLS	5061
M-14	5062
M-1 GARAND	5063
P-14 & P-17 ENFIELDS	5064
UZI CARBINE	5065
LUGER 9MM	5066
H&K MP-5	5067
WALTHER PP & PPK	5068
MINI 14	5069
WALTHER P-38	5072
HIGH-POINT MODEL 995 CARBINES	5074
H&K P9 PISTOLS	5075
RESING	5076
WINCHESTER MODEL 12	5077
WINCHESTER MODEL 88	5078
WINCHESTER MODEL 50	5079
H&K 33 .223	5080
DAWOO .223	5081
SIG SAUER PISTOLS	5082
COLT .45 & .38 PISTOLS	5083
SMITH & WESSON PISTOLS	5084
RUGER PISTOLS	5085
M-1 CARBINE	5086
WINCHESTER M-63 .22LR	5087
KBI PA-63	5088
CALICO M-100	5089
AR-7 SURVIVAL RIFLE	5090
RUGER 10 / 22 RIFLE	5091